

Abstract

An image processing apparatus, an image processing system and an image processing method can correct the distortion of an image at a low cost and can generate a high quality image in real time. An image processing apparatus is provided which is an image processing apparatus for correcting an original image having distortion. The apparatus includes a horizontal one-dimensional interpolating unit (501) for correcting the distortion in the horizontal direction by performing a one-dimensional interpolation operation using a horizontal correcting parameter X_m which indicates a correction quantity in the horizontal direction at a pixel point constituting the original image, and a vertical one-dimensional interpolating unit (502) for correcting the distortion of the original image in the vertical direction by performing the one-dimensional interpolation operation to the image obtained by the correction by the horizontal one-dimensional interpolating unit (501), using a vertical correcting parameter Y_m which indicates a correction quantity in the vertical direction at the pixel point constituting the original image .